

WHAT IS CLAIMED:

1. A method of identifying an update between a first version of a data file and a second version of a data file, the data file having a plurality of blocks of data, the meaning of the data file being insensitive to the ordering of the blocks of data within the data file, the method comprising the steps of:

providing each of said plurality of blocks of data with a first checksum;

providing each of said versions of the data file with a second checksum of the said version of the data file as a whole, said second checksum being insensitive to the ordering of the blocks of data within the data file;

comparing the second checksum of the first version of the data file with the second checksum of the second version of the data file;

responsive to said comparison indicating that the second checksum of the first version of the data file differs from the second checksum of the second version of the data file:

comparing the first checksum of each of said plurality of blocks of data of the first version of the data file with the first checksum of each of said plurality of blocks of data of the second version of the data file; and

providing an indication of which of said plurality of blocks of data differ between the first version of the data file and the second version of the data file.

2. A method as claimed in claim 1 wherein said first checksum is sensitive to the ordering of the data within a block of data.

5 3. A method as claimed in claim 1 wherein at least one of the blocks of data consists of a plurality of components and each of said plurality of components further comprises a third checksum.

10 4. A method as claimed in claim 3 further comprising the steps of:

selecting said third checksum from one of MD5 or a CRC algorithm; and

15 combining said third checksum to provide said first checksum for each of the blocks of data using one of a 1-s complement sum or an XOR algorithm.

20 5. A method as claimed in claim 1 wherein the data file is an XML data file and said step of comparing is performed using an XSL Transform.

25 6. Apparatus for identifying an update between a first version of a data file and a second version of a data file, the data file having a plurality of blocks of data, the meaning of the data file being insensitive to the ordering of the blocks of data within the data file, the apparatus comprising:

30 first checksum generating means for generating a first checksum for each of said plurality of blocks of data;

second checksum generating means for generating a second checksum for each of said first and said second versions of the data file as a whole, said second checksum being insensitive to the ordering of the blocks of data within the data file;

first comparison means for comparing the second checksum of the first version of the data file with the second checksum of the second version of the data file;

second comparison means for comparing the first checksum of each of said plurality of blocks of data of the first version of the data file with the first checksum of each of said plurality of blocks of data of the second version of the data file, the second comparison means being responsive to said first comparison means indicating that the second checksum of the first version of the data file differs from the second checksum of the second version of the data file:

indication means providing an indication of which of said plurality of blocks of data differ between the first version of the data file and the second version of the data file.

7. Apparatus as claimed in claim 6 wherein said first checksum is sensitive to the ordering of the data within a block of data.

8. Apparatus as claimed in claim 6 wherein at least one of the blocks of data consists of a plurality of components and each of said plurality of components further comprises a third checksum.

9. Apparatus as claimed in claim 6 wherein:

the third checksum is one of MD5 or a CRC algorithm;
and further comprising:

5 means for combining said third checksum to provide
said first checksum for each of the blocks of data using
one of a 1-s complement sum or an XOR algorithm.

10. Apparatus as claimed in claim 6 wherein the data
file is an XML data file and said step of comparing is
10 performed using an XSL Transform.

11. A computer program comprising computer program code
means adapted to perform the steps of claim 1.